



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,796	06/01/2001	Craig L. Stevens	10001.000600 (NVLS 379)	4156
31894	7590	05/19/2005	EXAMINER	
OKAMOTO & BENEDICTO, LLP			KIELIN, ERIK J	
P.O. BOX 641330			ART UNIT	
SAN JOSE, CA 95164			PAPER NUMBER	
			2813	

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/872,796

Applicant(s)

STEVENS ET AL.

Examiner

Erik Kielin

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-13,17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-13,17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action responds to the Amendment filed 10 March 2005.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-7, 9-13 and 17, 19-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,431,807 B1 (**Stevens** et al.) in view of US 6,251,759 B1 (**Guo** et al.).

Claims 1 and 2 of the '807 patent claim a single-wafer load lock having only one pedestal configured to support a single wafer thereon, wherein the load-lock has an integral cooling unit to cool the single wafer and a transfer chamber and liquid cooling and the robot for transferring the wafer.

Guo and **Edwards** teaches a wafer processing system having the remaining features of the claims, as explained above.

It would have been obvious for one of ordinary skill in the art, at the time of the invention to incorporate the cluster system of **Guo** into the single-wafer system of the '807 claims, in order to form the cluster tool having high throughput, as taught by **Guo**.

3. Claims 1-7, 9-13 and 17, 19-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over any of claims 1, 3, 5, and 6 of U.S. Patent No. 6,722,835 B1 (**Stevens et al.**) in view of US 6,251,759 B1 (**Guo et al.**).

Each of claims 1, 3, 5, and 6 of the '835 patent claim a single-wafer load lock having only one pedestal configured to support a single wafer thereon, wherein the load-lock has an integral cooling unit to cool the single wafer and a transfer chamber and liquid cooling and the robot operating at atmospheric pressure.

Guo teaches a wafer processing system having the remaining features of the claims, as explained above.

It would have been obvious for one of ordinary skill in the art, at the time of the invention to incorporate the cluster system of **Guo** into the single-wafer system of the '835 claims, in order to form the cluster tool having high throughput, as taught by **Guo**.

Allowable Subject Matter

4. The following is a statement of reasons for the indication of allowable subject matter: Although the claims are presently rejected under the judicially created doctrine of obviousness-type double patenting, Applicant has indicated that terminal disclaimers will be filed upon notice of an indication that the claims are allowable. While no claims are presently considerable

Art Unit: 2813

allowable, Examiner believes that the claims recite a non-obvious feature. The prior art does not teach or suggest, in combination with the other claimed limitations, that the pedestal is configured to lift the wafer from the pins during the pump down. While **Edwards** teaches the pedestal **48** (called a "wafer support" col. 8, line 54), and the wafer support **48** has an elevator **56**, and pins **59**, the pedestal is not configured to lift the wafer from the pins (Edwards, Figs. 3, 4A-4C). Instead, the pins are used to raise and lower the wafer onto the pedestal. While this may seem a trivial difference, it is not. Given the manner of operation of the pedestal in **Edwards**, there is no suggestion to configure the pedestal **48** to lift the wafer from the pins during the pump down of the chamber since the pins **59** are used to raise and lower the wafer from the pedestal **48**. The elevator **56** is used to raise pedestal **48** simultaneously with the pins **59** to seal the high vacuum back end **31** of the chamber to the atmospheric pressure front end **32**. Support for this limitation can be found in the instant specification at page 7, lines 17-21.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2813

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik Kielin whose telephone number is 571-272-1693. The examiner can normally be reached from 9:00 - 19:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Erik Kielin
Primary Examiner
May 16, 2005